

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/004650

A. CLASSIFICATION OF SUBJECT MATTER  
Int.Cl<sup>7</sup> H01L27/105, 27/22

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> H01L27/105, 27/22, 29/78

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2004

Kokai Jitsuyo Shinan Koho 1971-2004 Toroku Jitsuyo Shinan Koho 1994-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 57-68092 A (Hitachi, Ltd.), 26 April, 1982 (26.04.82), Full text (Family: none)	1-4

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search  
25 June, 2004 (25.06.04)

Date of mailing of the international search report  
13 July, 2004 (13.07.04)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

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**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

(See extra sheet.)

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-4

**Remark on Protest**

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

Continuation of Box No.III of continuation of first sheet(2)

There must exist a special technical feature so linking a group of inventions of claims as to form a single general inventive concept in order that the group of inventions may satisfy the requirement of unity of invention. However, the group of inventions of claims 1-37 are linked only by the technical feature that "...comprises a memory medium capable of holding information, control unit for recording information in the memory medium, and a sensing element for reading information from the memory medium, and the sensing element is independent of the memory medium".

However, this technical feature cannot be a special technical feature since it is disclosed in prior art documents such as JP 57-68092 A (Hitachi, Ltd.) 26 April, 1982 (26.04.82).

Therefore, there exists no special technical feature so linking the group of inventions of claims 1-37 as to form a single general inventive concept. Consequently, it appears that the group of inventions of claims 1-37 do not satisfy the requirement of unity of invention. Therefore, the inventions of claims 1-37 are divided into two groups of inventions: the inventions of claims 1-27, 29-34, 36, 37; and the inventions of claims 28, 35.

Further examining the group of inventions of claims 2-27, 29-34, 36, 37 referring to claim 1, the inventions are linked only by the technical feature that "the memory medium is a magnetic body, the control unit has a first magnetic field generating section for varying the magnetized state of the magnetic body by applying a magnetic field to the magnetic body, and the sensing element is disposed near the magnetic body and has a magnetic-to-electric conversion section having an electric characteristic varying with the magnetized state of the magnetic body". However, this technical feature cannot be a special technical feature since it is disclosed in the above mentioned prior art document.

Therefore, there exists no special technical feature so linking the group of inventions of claims 2-27, 29-34, 36, 37 as to form a single general inventive concept. Consequently, it appears that the inventions of claims 2-27, 29-34, 36, 37 do not satisfy the requirement of unity of invention.

Therefore, the inventions of claims 2-27, 29-34, 36, 37 are apparently divided into fifteen groups of inventions: the inventions of claims 2-6, 26, 27, 32-34; the inventions of claims 7-18; the inventions of claims 19-25; and the inventions of 29-31, 36, 37.

Further examining the group of inventions of claims 3-6, 26, 27, 32-34 referring to claim 2, the inventions are linked only by the technical feature that "the magnetic-to-electric conversion section includes a magnetic-to-electric conversion element having an electrical characteristic varying with the state of the magnetic field to be sensed, and the magnetic-to-electric conversion element is disposed near the magnetic body so as to sense the magnetic flux generated by the magnetic body".

However, this technical feature cannot be a special technical feature since it is disclosed in the above mentioned prior art document.

Therefore, there exists no special technical feature so linking the group of inventions of claims 3-6, 26, 27, 32-34 as to form a single general inventive concept. Consequently, it appears that the inventions of claims 3-6, 26, 27, 32-34 do not satisfy the requirement of unity of invention.

Therefore, the inventions of claims 3-6, 26, 27, 32-34 are divided into three groups of inventions: the inventions of claims 3, 4; the inventions of claims 5, 6, 26, 27; (Continued to extra sheet.)

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Continuation of Box No.III of continuation of first sheet(2)

and the inventions of claims 32-34.

Consequently, this international application contains eighteen groups of inventions: the inventions of claims 1-4; the inventions of claims 5, 6, 26, 27; the invention of claim 7; the invention of claim 8; the invention of claim 9; the invention of claim 10; the invention of claim 11; the invention of claim 12; the invention of claim 13; the invention of claim 14; the invention of claim 15; the invention of claim 16; the invention of claim 17; the invention of claim 18; the inventions of claims 19-25; the inventions of claims 29-31, 36, 37; the inventions of claims 28, 35; and the inventions of claims 32-34.